

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/25029

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F02B37/12 F02M25/07 F02B29/04 F02M35/02 F02B37/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F02B F02M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 2002, no. 04, 4 August 2002 (2002-08-04) & JP 2001 355453 A (TAKEMOTO SHIGETO), 26 December 2001 (2001-12-26) abstract	1,28-35
X	GB 2 244 312 A (MOTOREN TURBINEN UNION) 27 November 1991 (1991-11-27) page 4, line 12 - line 33 page 6, line 4 - page 7, line 9 page 8, line 10 - page 9, line 1 page 13, line 4 - line 28; figure 4	1-4, 8-11, 28-33
X	GB 2 163 483 A (SOLEX) 26 February 1986 (1986-02-26) page 2, line 29 - line 54; figure 1	1,28-35
	-/--	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

7 April 2004

Date of mailing of the international search report

16/04/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Pileri, P

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/25029

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 355 677 A (HAWKINS JEFFERY S ET AL) 18 October 1994 (1994-10-18) column 3, line 7 - line 37 ----	1
A	US 4 394 812 A (MEZGER HANS) 26 July 1983 (1983-07-26) column 3, line 3 - line 17; figure 1 ----	1
A	PATENT ABSTRACTS OF JAPAN vol. 010, no. 051 (M-457), 28 February 1986 (1986-02-28) & JP 60 201025 A (MAZDA KK), 11 October 1985 (1985-10-11) abstract ----	6
A	DE 41 18 265 A (VOLKSWAGENWERK AG) 19 December 1991 (1991-12-19) column 1, line 55 -column 2, line 25 -----	6

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/25029

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 2001355453	A	26-12-2001	NONE	
GB 2244312	A	27-11-1991	DE 4016776 A1 FR 2660695 A1 IT 1256997 B US 5157924 A	17-10-1991 11-10-1991 27-12-1995 27-10-1992
GB 2163483	A	26-02-1986	NONE	
US 5355677	A	18-10-1994	US 5269144 A AU 659874 B2 AU 2591392 A BR 9206478 A CA 2115072 A1 EP 0604524 A1 JP 2633988 B2 JP 6510584 T KR 9701460 B1 WO 9305289 A2	14-12-1993 01-06-1995 05-04-1993 31-10-1995 18-03-1993 06-07-1994 23-07-1997 24-11-1994 06-02-1997 18-03-1993
US 4394812	A	26-07-1983	DE 3011203 A1 FR 2478737 A1 GB 2072747 A ,B IT 1139023 B SE 454617 B SE 8101787 A	01-10-1981 25-09-1981 07-10-1981 17-09-1986 16-05-1988 23-09-1981
JP 60201025 3	A		NONE	
DE 4118265	A	19-12-1991	DE 4118265 A1	19-12-1991